

only as growing on stony clay soils, frequently on solid limestone shelves covered with a thin layer of soil, or frequently growing in cracks of the solid exposed limestone rock. This plant is an attractive one when in full bloom, whereas most of the other species of *Pectis* in Texas cannot readily be so considered.

TEXAS AGRICULTURAL EXPERIMENT STATION,  
Sonora, Texas

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GRASS STUDIES. II. ADDITIONS TO THE  
FLORA OF ARKANSAS<sup>1</sup>

ETLAR L. NIELSEN

AN extensive survey of the grass flora of Arkansas was undertaken during the summer of 1936. Eight of the species represented in the collections are not recorded in Hitchcock's Manual (1935) as occurring in this state. Brief note is therefore made of the extension of range of these species.

*ERAGROSTIS REFRACTA* (Muhl.) Scribn. Five miles west of Rosston, Nevada County. Sept. 9, 1936. *Nielsen* no. 4387.

*FESTUCA VERSUTA* Beal. Rocky woods. Edens Bluff, about 8 miles southeast of Rogers, Benton County. May 30, 1936. *Nielsen* nos. 3772 and 3780.

*AGROPYRON SMITHII* Rydb. Roadside,  $\frac{1}{4}$  mile north of Dairy Building, University of Arkansas, Fayetteville, Washington County. July 1, 1936. *Nielsen* no. 4039. A dense colony of this species has become established on the shoulder of the highway. Scattered individuals of *A. REPENS* (L.) Beauv. (June 30, 1936. *Nielsen* no. 4030) occur along a fenceline in the same locality. No dense colonies of this species were found either here or at the University Experimental Farm located about 2 miles farther north. The species last mentioned is not new to Arkansas.

*BRACHYELYTRUM ERECTUM* (Schreb.) Beauv. Woods, Pulaski County. July 1884. *F. L. Harvey*; Wooded banks, Crowley's Ridge near Wynne, Cross County, Sept. 9, 1926. *E. J. Palmer* no. 31667; Fayetteville, Washington County. Oct. 1933. *D. M. Moore* no. 33084; Moist woods, Devils Den State Park, near Winslow, Washington County, May 31, 1936. *Nielsen* no. 3806; same locality, Aug. 1, 1936. *Nielsen* no. 4331; also gorge one mile west of Weedy Tower, U. S. F. S., Ozark National Forest. Aug. 2, 1936. *Nielsen* no. 4344. Branner and Coville (1891) accredit Nuttall to have originally reported this species for the state.

<sup>1</sup> Research Paper No. 463. Journal Series, University of Arkansas.